U.S. Department of Transportation
Office of the Secretary of Transportation

GENERAL COUNSEL
400 Seventh St., S.W.
Washington, D.C. 20590

October 3, 1997

Mr. William F. Caton
Office of the Secretary
Federal Communications Commission
1919 M St., N.W.
Washington, D.C. 20554

Re: Amendments to Part 90 Private Land
Mobile Radio Service Rules, RM 8734

Dear Mr. Caton:

Enclosed are an original and nine copies of the Comments of the United States Department of Transportation in the above-referenced proceeding.

Respectfully submitted,

Paul Samuel Smith

Paul Samuel Smith
Senior Trial Attorney

Enclosures

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matter of	)	
Amendments to Part 90 Private Land	)	RM 8734
Mobile Radio Service Rules	)	
	)	

COMMENTS OF THE UNITED STATES DEPARTMENT OF TRANSPORTATION

Introduction

In response to a rulemaking petition filed by the Radio Association Defending Airwaves Rights ("RADAR"), the Federal Communications Commission ("FCC" or "Commission") in the instant proceeding has proposed to allow various traffic safety messages to be transmitted to the driving public via the frequency band now used by radar detectors. 62 Fed. Reg. 46468 (September 3, 1997). The United States Department of Transportation ("DOT" or "Department"), the federal agency with national responsibility for ensuring safe transportation, urges that such a rule not be adopted. The petitioner's proposal is unlikely to enhance the safety of motorists, and it invites undercutting that safety by promoting the widespread deployment of a device whose primary use is to facilitate unlawful speeds without detection.

Discussion

The FCC has allocated the 24.05 - 24.25 Gigahertz ("GHz") band of the radio spectrum for the purpose of determining direction, distance, speed, and position for purposes other than navigation. 47 C.F.R. §§ 90.101 and 90.103. Law enforcement authorities nationwide use this band for measuring vehicle

speeds by devices commonly known as "radar guns." This is also the band used by devices designed to detect the signals emitted by these guns (so-called "radar detectors" or "fuzz busters").

The instant proceeding stems from a petition filed by RADAR, an association comprised of manufacturers of radar detectors. RADAR seeks to expand the use of the relevant band of spectrum to allow for the transmission of signals that would alert motorists to various potential safety hazards; public safety authorities [1] would install transmitters on their vehicles and at specified locations to send signals alerting motorists about the presence of nearby emergency vehicles and hazardous driving conditions. [2] These signals would be receivable by modified radar detectors, which would display a short message.

The Department opposes the petition in its present form. Studies have demonstrated that radar detectors certainly allow, if not encourage, motorists to travel at increased speeds above posted limits. Insurance Institute for Highway Safety ("IIHS"), The Duration of Speed Reductions Attributable to Radar Detectors (1993); IIHS, Radar Detector Use in Large Trucks, (1990); IIHS, Radar Detector Use and Speeds in Maryland and Virginia, (1990). [3] Largely on the basis of such evidence, the Department, through one of its operating administrations, the Federal Highway Administration ("FHWA"), has proscribed radar detectors in commercial vehicles. 49 C.F.R. § 392.71. For similar reasons the Commission in 1991 agreed to permit the use of so-called "drone" radar units at the request of another DOT operating administration, the National Highway Safety Administration ("NHTSA"). [4] Attachment.

1/ E.g., police, fire, emergency medical, and highway maintenance entities.

2/ The FCC has also proposed that traffic signal control signals could use a portion of this band of spectrum.

3/ These studies collectively establish that motorists in vehicles equipped with radar detectors drive faster and more often exceed posted limits than those without detectors, and that radar detectors are used primarily to evade police enforcement of speed limits.

4/ Drone radar units are unattended and emit microwaves continually, as opposed to police-activated radar guns. Drones enhance speed detection and deterrence efforts by triggering radar detectors, which reduces vehicle speeds because of driver perception of imminent police enforcement of speed limits.

There are also reasons to doubt that the system proposed by RADAR would achieve any widespread safety gains. First, alert messages in the 24 GHz band, particularly those transmitted from a specific location over a period of time, may subject police speed enforcement efforts to interference, or otherwise effectively limit the areas in which enforcement can be implemented. Second, the FHWA regulation barring such detectors from commercial vehicles in any event will continue to prevent their use for their original purpose by a large segment of drivers.

More importantly, unless and until the public safety community embraces the RADAR proposal -- and there is ample reason to suggest this will not happen -- the additional features that might promote more widespread use of radar detectors will remain inchoate and safety will not benefit. Perhaps the main reason local safety authorities are unlikely to transmit driver alerts via radar detector frequencies is the antipathy they have expressed for radar detectors. [5] That antipathy, of course, proceeds from the fact that these devices are principally designed and used for a purpose that undermines transportation safety -- to facilitate speed in excess of posted limits. Id. So long as that is the case, the potential safety benefits of the RADAR proposal will be outweighed by the negative safety implications of the underlying radar detector technology.

By contrast, the Department supports wireless communications services that enhance transportation safety without compromising it. To this end DOT fosters research into potentially useful technologies, including that proffered by the RADAR petition. [6] We also seek to advance implementation of those technologies that show particular promise, such as intelligent transportation systems ("ITS") technologies, as evidenced by our comments

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[5]/ The comments filed by police, fire, emergency, and other authorities in the FHWA rulemaking were all but unanimous in their opposition to radar detectors. *See* 58 Fed. Reg. at 67371-72.

[6]/ For example, pursuant to federal law, DOT has commissioned a study now being carried out by the Georgia Tech Research Institute. Section 358(c) of P.L. No. 104-59, 109 Stat. 625. That study is scheduled for completion in December of 1997. Earlier research suggests that the use of the relatively higher frequencies proposed in the RADAR petition may be less attractive for short-range communications systems devoted to transportation safety. ARINC., Spectrum Requirements for Dedicated Short Range Communications: Public Safety and Commercial Applications, July 1996 (Appendix H to ITS America petition, FCC RM 9096, *infra.*)

in relevant proceedings pending at the Commission. [7] In one of these in particular, the Department has supported a recent petition by the Intelligent Transportation Society of America ("ITS America") that seeks to have spectrum set aside for an enabling technology known as Dedicated Short-Range Communications ("DSRC"). RM 9096. DSRC facilitates a multitude of services that promote transportation safety and efficiency in a comprehensive and compatible manner, including many of the types of services suggested in the RADAR petition. [8] The Department does not espouse a particular technology or frequency band by which DSRC functions may be served, but the services envisioned by RADAR stress only limited one-way messaging capability, and thus fall short of the full range of DSRC functions that DOT anticipates for nationwide integrated ITS services. [9]

7/ *Viz.*, In the Matter of: Petition of the Intelligent Transportation Society of America for Amendment of the Commission's Rules to Add Intelligent Transportation Services as a New Mobile Service With Co-Primary Status in the 5.850 to 5.925 GHz Band, RM 9096; In the Matter of: Development of the Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010, WT Docket 96-86.

8/ E.g., in-vehicle signing, driver advisories, and emergency vehicles signal priority or preemption.

9/ The National ITS Program Plan and the National ITS Architecture identify a universe of ITS services and establish a technological framework for implementing them; they have identified DSRC as the most appropriate medium for many of these services, and have defined minimum performance requirements. See DOT Comments in RM 9096 at pages 2-3 and Attachments C and F.

Conclusion

The Department vigorously supports the use of the radio spectrum to enhance transportation safety. However, the RADAR petition is unlikely to achieve its stated purpose. Most importantly, it is counterproductive of public safety to encourage greater use of devices designed, marketed, and used to exceed the speed limits on the nation's roadways. DOT accordingly opposes the proposed rule.

Respectively submitted,

Rosalind A. Knapp
DEPUTY GENERAL COUNSEL

ATTACHMENT

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

JULY 1, 1991

IN REPLY REFER TO:

7310-03

Mr. J. Michael Sheehan, Jr.
Chief, Police Traffic Services Division
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Mr. Sheehan:

We have completed our review of the proposed drone radar operational guidelines developed by your office. These guidelines consist of five major components, four of which do not relate directly to Federal Communications Commission matters. In general, the guidelines appear to adequately address the use of drone radar in law enforcement speed reduction programs. My comments, however, will address only the guideline concerning the adherence of drone radar use to the Federal Communications Commission's Rules and policies.

Except for a few specifically authorized test programs, the Commission has required that unattended drone radar operations make some use of the reflected radar signal, such as activating signs, warning devices, compiling speed statistics, etc. We have reconsidered this requirement as it would apply to law enforcement agencies and have concluded that the use on a controlled basis of unattended, continuously-radiating radar could be permitted. The NHTSA guidelines appear to make an effort to limit the extent to which drone radars may be used and, when applied, would assist in minimizing any adverse effect on other Commission-licensed radiolocation operations. We are, therefore, revising our policy and will permit law enforcement agencies to utilize attended or unattended radar units, without the requirement that the return signal be used for some specific purpose. We wish to emphasize that any radar units used in drone operations must be type accepted and licensed for police use by the Commission.

We are keenly aware of the National Highway Traffic Safety Administration's concern to improve traffic safety and appreciate your effort in considering the Commission's concerns by asking for our coordination of the drone radar guidelines. We would appreciate receiving the finalized version and any subsequent revisions of the guidelines.

Sincerely,

Ralph A. Haller
Chief, Private Radio Bureau